

CLAIMS

I claim:

1. In a palladium/nickel catalytic composition carried on a support which is suited for use in a hydrogenation process, the improvement which resides in the inclusion of a promotingly effective amount of a metal M selected from the group consisting of zinc, cadmium, copper, and silver.

2. The catalytic composition of Claim 1 wherein the nickel is present in an amount from about 10 to 25 percent by weight of the support.

3. The catalytic composition of Claim 2 wherein the palladium is present in an amount from 0.01 to 20 percent by weight of the support.

4. The catalytic composition of Claim 3 wherein the metal M is present in an amount from about 0.001 to 10 wt% of the support.

5. The catalytic composition of Claim 4 wherein the weight ratio of nickel to palladium is from 1-100:1.

6. The catalytic composition of Claim 5 wherein the weight ratio of nickel to metal M is from about 10-1000:1.

7. The catalytic composition of Claim 6 wherein the weight ratio of palladium to metal M is from 0.5-10:1.

8. The catalytic composition of Claim 7 wherein the metal M is zinc.

9. The catalytic composition of Claim 8 wherein the support is selected from the group consisting of alumina, lithium aluminate, carbon, silica, titania, zeolite, kiesulguhr or cordierite monolith with above supports as washcoat.

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10. The catalytic composition of Claim 9 wherein the nickel is present in an amount of from 15 to 20% by weight of the support, the palladium is present in an amount from 0.5 to 1.5% by weight and the zinc is present in an amount from 0.1 to 2% by weight.

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